WHAT IS CLAIMED IS:

1. 1.   An access device comprising:

2.   a timeslot allocation table including timeslot allocation information; and

3.   a transmitter coupled to the timeslot allocation table, wherein the transmitter transmits

4. data and updated timeslot allocation information in accordance with the timeslot allocation

5. information.

1. 2.   The access device according to claim 1, further comprising at least one input channel,

2. wherein the transmitter further allocates timeslot lengths for the at least one input channel

3. according to the timeslot allocation information.

1. 3.   The access device according to claim 2, wherein the timeslot allocation table receives

2. updated timeslot allocation information and the transmitter reallocates timeslot lengths according

3. to the updated timeslot allocation information.

1. 4.   The access device according to claim 2, wherein the timeslot allocation table further

2. includes timeslot allocation information for each of the at least one input channel.

1. 5.   The access device according to claim 1 further comprising at least one input channel,

2. wherein the transmitter includes a time division multiplexer and wherein the time division

3. multiplexer time division multiplexes data from the at least one input channel into timeslots

4. according to the timeslot allocation information.

1. 6.   The access device according to claim 5, wherein the timeslot allocation information

2. includes the number of clock cycles allocated to each of the at least one input channel, and the

3. channel characteristics associated to each of the at least one input channel.

1　7.　The access device according to claim 1, wherein the transmitter transmits updated

2　timeslot allocation information in a reserved slot along with the transmitted data.

1　8.　The access device according to claim 1, further comprising:

2　　　　a second timeslot allocation table including second timeslot allocation information; and

3　　　　a receiver coupled to the second timeslot allocation table and coupled to the transmitter.

1　9.　The access device according to claim 1, further comprising a controller coupled to the

2　timeslot allocation table, wherein the controller receives updated timeslot allocation information

3　and updates the timeslot allocation table with the updated timeslot allocation information.

1　10.　The access device according to claim 9, wherein the updated timeslot allocation

2　information includes information regarding the addition of channels.

1　11.　The access device according to claim 9, wherein the updated timeslot allocation

2　information includes information regarding the removal of channels.

1　12.　The access device according to claim 1, wherein the timeslot allocation table includes

2　characteristics of at least one channel recorded into a corresponding channel section of the

3　timeslot allocation table.

1　13.　The access device according to claim 12, wherein the characteristics of the at least one

2　channel include at least one of data type information, time stamp information, priority

3　information, and sequence information.

1　14.　The access device according to claim 12, wherein the characteristics of the at least one

2　channel include inter-channel relationship information used to combine multiple non-adjacent

3　timeslots into one virtual timeslot.

1   15.   The access device according to claim 1, wherein the transmitter further transmits time

2   division multiplexed data and packetized data simultaneously without disrupting the flow of the

3   corresponding data.

1   16.   A method of controlling access to a network comprising:

2   reserving a portion of transmitted data for timeslot allocation information of at least one

3   channel; and

4   storing the timeslot allocation information in a timeslot allocation table.

1   17.   The method according to claim 16, further comprising time division multiplexing the

2   timeslot allocation information with the transmitted data.

1   18.   The method according to claim 16, further comprising updating the timeslot allocation

2   information with updated timeslot allocation information to reallocate a timeslot for the at least

3   one channel.

1   19.   The method according to claim 18, wherein the updated timeslot allocation information

2   includes information regarding the addition of a second channel to the at least one channel.

1   20.   The method according to claim 18, wherein the updated timeslot allocation information

2   includes information regarding the subtraction of a second channel from the at least one channel.

1   21.   The method according to claim 18, wherein the updated timeslot allocation information

2   includes information regarding increasing the length of a timeslot allocated to the at least one

3   channel.

1   22.   The method according to claim 18, wherein the updated timeslot allocation information

2   includes information regarding decreasing the length of a timeslot allocated to the at least one

3   channel.

1 23. The method according to claim 16, further comprising receiving received data including

2 updated timeslot allocation information time division multiplexed with the received data.

1 24. The method according to claim 16, wherein the timeslot allocation table includes

2 characteristics of at least one channel recorded into a corresponding channel section of the

3 timeslot allocation table.

1 25. The method according to claim 24, wherein the characteristics of the at least one channel

2 include at least one of data type information, time stamp information, priority information, and

3 sequence information.

1 26. The method according to claim 24, wherein the characteristics of the at least one channel

2 include inter-channel relationship information used to combine multiple non-adjacent timeslots

3 into one virtual timeslot.

1 27. The method according to claim 16, further comprising transmitting time division

2 multiplexed data and packetized data simultaneously without disrupting the flow of the

3 corresponding data.

1 28. An access device comprising:

2   means for allocating a portion of a bandwidth for timeslot allocation information; and

3   a transmitter for transmitting updated timeslot allocation information in the portion of the

4 bandwidth allocated for the timeslot allocation information.